JOINTITE

CORK PRODUCTS

L. MUNDET AND SON INC.
NEW YORK
N.Y.

Jointite TRADE MARK

Index of Products

The following Mundet Products are shown in other sections of SWEET'S CATALOGUE. See Manufacturers' Index

MUNDET "JOINTITE" CORK TILE

For Flooring, in a variety of forms

MUNDET "JOINTITE" BULLETIN BOARD

Information on the Following Miscellaneous Specialties Furnished on Request

Corks, Gaskets, Washers, Textile Roll Covering, Bungs, Taps, Handles, Floats, Life Preservers, Insoles, Crowns, Buoys, Yacht Fenders, Cork Paper, Pen Holder Handles, Fishing Rod Handles and other Sundry Cork Materials

■

Jointite TRADE MARK

CORK PRODUCTS

A COMPENDIUM OF INFORMATION ON THE USES OF CORK FOR INSULATION PURPOSES

including useful data, specifications, tables and charts for

REFRIGERATION
SOUNDPROOFING
HEAT PREVENTION
HEAT CONSERVATION
VIBRATION DEADENING
CONDENSATION PREVENTION

■

L. MUNDET & SON, INC.

461 Eighth Avenue, NEW YORK, N. Y.

Domestic Factories
HILLSIDE, N. J.
BROOKLYN, N. Y.

Foreign Factories
PORTUGAL—ALDEGALEGA, AMORA, MORA, PUERTE DE SOR, SEIXAL
TORONTO, CANADA; LONDON, ENGLAND; DJIDJELLI, ALGERIA

Branches

ATLANTA, GA.
BOSTON, MASS.
BUFFALO, N. Y.
CHARLOTTE, N. C.
CHICAGO, ILL.
CINCINNATI, OHIO
DETROIT, MICH.
HOUSTON, TEX.
KANSAS CITY, MO.
LOS ANGELES, CAL.
MEMPHIS, TENN.
NEW ORLEANS, LA.
NEW YORK, N. Y.
PHILADELPHIA, PA.
ST. LOUIS, MO.
SAN FRANCISCO, CAL.
TULSA, OKLA.

Canada

MONTREAL, QUEBEC, MUNDET CORK AND INSULATION, LTD.
TORONTO, ONTARIO, MUNDET CORK AND INSULATION, LTD.
WINNIPEG, MANITOBA, MUNDET CORK AND INSULATION, LTD.

Great Britain

LONDON, ENGLAND, MUNDET CORK PRODUCTS, LTD.

Agents

CLEVELAND, OHIO, C. S. ROSS
DES MOINES, IOWA, JOHN KENNEDY
MINNEAPOLIS, MINN., INSULATION SALES CO.
PORTLAND, ORE., F. J. LEONARD
PORTLAND, ORE., PACIFIC ASBESTOS & SUPPLY CO.
SALT LAKE CITY, UTAH, L. A. ROSER
SEATTLE, WASH., PACIFIC ASBESTOS & SUPPLY CO.
UTICA, N. Y., GEORGE WEISENBERGER
VANCOUVER, B. C., CANADA, T. M. GRINDLEY COMPANY, LTD.

Continued on next page

REFERENCES

Bakeries

Gordon Baking Co.*	
Ward Baking Co.*	
Hill Baking Co.	Jersey City, N. J.
Kroger Grocery & Baking Co.*	

Candy Factories

F. G. Shattuck Co. (Schrafft's)	New York, N. Y.
Reichardt Cocoa Corp.	New Brunswick, N. J.
Park & Tilford	New York, N. Y.
National Candy Co.*	
Planters Nut & Chocolate Co.	Suffolk, Va.

Cheese Factories

Kraft Phoenix Cheese Co.*

Clubs

Chicago Womans Club	Chicago, Ill.
Engineers Club	Boston, Mass.
Detroit Hockey Club	Detroit, Mich.
Union League Club	New York, N. Y.

Cold Storage Warehouses

Merchants Refrigerating Co.	Jersey City, N. J.
Great Atlantic & Pacific Tea Co.	Brooklyn, N. Y.
Charles & Co.	New York, N. Y.
Hullman & Co.	Terre Haute, Ind.
Indiana Refrigerating Co.	Indianapolis, Ind.
Fly & Hobson	Memphis, Tenn.

Colleges

Yale University	New Haven, Conn.
Harvard University	Boston, Mass.
University of Pennsylvania	Philadelphia, Pa.
Temple University	Philadelphia, Pa.

Dairies

Borden Farms Products Co.*	
Sheffield Farms Co.*	
Lansing Dairy Co.	Lansing, Mich.
National Dairy Products Co.	Long Island City, N. Y.
H. B. Hood & Sons, Inc.	Charlestown, Mass.

Fish Storage Warehouses

N. J. Ice & Cold Storage Co.	Beach Haven Crest, N. J.
Bay State Fishing Co.	Boston, Mass.
A. Pallidini	San Francisco, Cal.

Florists

General Florist Supply Co.	New York, N. Y.
Burton & Watson, Inc.	Philadelphia, Pa.
Tupelo Floral Co.	Tupelo, Miss.

Fur Storages

Revillon Freres	New York, N. Y.
L. Bamberger & Co.	Newark, N. J.

Government Work

U. S. Buildings in various cities

Hospitals

Physicians and Surgeons Hospital	Wilmington, Del.
Columbus Hospital	Chicago, Ill.
U. S. Government Hospitals*	
Faulkner Hospital	So. Boston, Mass.
Presbyterian Hospital	Newark, N. J.
New York State Hospitals*	
New York City Hospitals*	

Hotels

Hotel Park Central	New York, N. Y.
Hotel St. George	Brooklyn, N. Y.
Hotel Majestic	Philadelphia, Pa.
Bryn Mawr Beach Hotel	Chicago, Ill.
Kenmore Hotel	Boston, Mass.
Jung Hotel	New Orleans, La.

Ice Cream Plants

Breyers Ice Cream Co.*	
F. G. Shattuck Co. (Schrafft's)	New York, N. Y.
Eskimo Pie Corp.	Brooklyn, N. Y.
Annheuser Busch Co.	Oakdale, L. I., N. Y.
Wieland Ice Cream Co.	Chicago, Ill.
Good Humor Ice Cream Co.	Detroit, Mich.

Ice Plants

Knickerbocker Ice Co.	New York, N. Y.
Rubel Ice Corp.	New York, N. Y.
Kansas Power Co.	Dodge City, Kan.
Tri City Ice Co.	Rock Island, Ill.
Boston Ice Co.	Boston, Mass.
Crescent City Ice Mfg. Co.	New Orleans, La.
City Ice & Fuel Co.	St. Louis, Mo.

Industrial Plants

Public Service Gas & Electric Co.	Jersey City, N. J.
Procter & Gamble Co.*	
DuPont Viscoid Co.	Arlington, N. J.
Michelin Tire Co.	Middletown, N. Y.
Bethlehem Steel Co.	Bethlehem, Pa.
Buick Motor Co.	Flint, Mich.
American Enka Corp.	Asheville, N. C.

Office Buildings

New York Life Building	New York, N. Y.
Provident Mutual Life Ins. Building	Philadelphia, Pa.
Shrine Building	Memphis, Tenn.
Bell Telephone Co.*	

Oil Refineries and Plants

Crew Levick Co.	Philadelphia, Pa.
C. F. Simons Son, Inc.	Philadelphia, Pa.
Champlin Refinery Co.	Enid, Okla.
Sinclair Oil Co.	Tulsa, Okla.
Mid Continental Oil Co.	Tulsa, Okla.
Indiana Refining Co.	Indianapolis, Ind.
Standard Oil Co. of California	Los Angeles, Cal.

Packing Companies

C. A. Durr Packing Co.	Utica, N. Y.
Swift & Co.	New York, N. Y.
Wilson & Co.*	
Major Bros. Packing Co.	Mishawaka, Ind.
Emge & Sons	Fort Branch, Ind.
Batchelor & Snyder Co.	Boston, Mass.
Golden State Meat Co.	San Francisco, Cal.
Armour & Co.*	

Provision Plants

Federal Packing Co.	New Haven, Conn.
Archer Daniels Midland Corp.	Edgewater, N. J.
Wm. A. Donnelly	Philadelphia, Pa.
Western Produce Co.	Abiline, Tex.
Hildebrandt Provision Co.	Cleveland, Ohio
International Produce Co.	Chicago, Ill.
Providence Produce Terminal	Providence, R. I.

Restaurants

Childs Restaurants*	
F. G. Shattuck Co. (Schrafft's)*	
Rubens Restaurant	New York, N. Y.
Longchamps Restaurants	New York, N. Y.
Bickford Restaurants	New York, N. Y.
De Mets	Chicago, Ill.
Caruso Restaurants*	

Skating Rinks

Playland	Rye, N. Y.
The Arena	Tulsa, Okla.

Theatres

Loews Theatres*
Warner Bros. Theatres*
Radio Keith Orpheum Theatres*

*Plants in various cities insulated with "Jointite" Corkboard and Pipe Covering.

Continued on next page

History of the Company

The name of Mundet was first identified with cork products in the year 1865. Today the Company ranks among the leaders of the industry.

Cork and Its History

Cork has been used for many centuries. We find that it was fabricated by the ancients into shoe soles, floats, and bottle stoppers. In recent years, the uses of cork have multiplied many times, and today it is a necessary concomitant of civilization.

In Spain, Portugal, Africa (Mediterranean) and Italy we find an evergreen known as the Cork Oak. This tree must survive a tremendous amount of heat since it grows in tropical and semi-tropical zones. Nature has provided for this by promoting a growth which covers the trunk and limbs of the tree and effectively insulates it against the intense heat. This growth (or bark) is the cork of commerce. At periodical intervals the trees are stripped of this bark, which is then processed, baled and shipped to various manufacturing centers in Europe and the United States. These plants produce a multitudinous variety of cork products including cork insulation.

Why Cork Is an Insulator

As explained above, Nature provided a covering that would protect the Cork Oak from the attack of tropical heat. This is accomplished by shaping a covering of relatively even thickness containing a multitude of minute air particles each hermetically sealed one from the other. Each particle of entrapped air is so small that it will not permit the setting up of air currents and in this way heat penetration is prevented. Furthermore, due to its granular structure, cork has no capillarity, while practically all other insulating materials are of a fibrous nature and have a high degree of capillarity.

The Manufacture of Corkboard

The cork bark used for insulation is first ground up into particles or granules of from 3/8 to 5/8 in. in size. These are filled into moulds and hydraulically pressed to the required density. The moulds are then placed in an oven maintained at a relatively high temperature for a period of time dependent upon the thickness of insulation involved. The cork is kept under compression in the moulds throughout the baking process. The heat liquifies the gum or rosin that is peculiar to this type of bark. This gum thoroughly binds the granules together and hermetically seals one from the other, producing a solid slab of cork board (still 100% pure cork). The rough slab is then subjected to a finishing process which cuts it to accurate size and sands its surfaces, completing the manufacture of commercial corkboard insulation.

Essentials of Good Insulation

The essentials of good insulation are low thermal conductivity; fire retardance; permanence; nonabsorbence; sanitation; economy. Mundet "Jointite" Corkboard incorporates all these qualities.

Our Facilities

The Company maintains two plants for the exclusive manufacture of insulation products. One is located in Portugal and the other in New Jersey (about six miles from New York City). These plants are of about the same capacity and can produce a total of 60,000,000 to 70,000,000 ft. board measure of insulation a year. "Jointite" products are stocked in many of the large centers of the world. The Portuguese plant is adjacent to the Port of Lisbon from which regular sailings are to be had to any part of the world. The New Jersey plant at all times carries large stocks of finished products, as do all of the Branch Offices located in the principal cities of the United States and Canada. The Company's shipping facilities are unsurpassed, either by rail or water.

Sales and Service

The Company maintains branches in all the principal cities of the United States and Canada, and in London, England, for the convenience of its clients. Our branch offices are in charge of competent engineers who will gladly co-operate and furnish information pertinent to insulation work.

Contracting

The Company maintains a well organized erecting force at each branch office fully capable of handling any erection contract involving corkboard. No contract is too small or too large.

Guarantee

The Company fully guarantees that its material and workmanship are of the best and agrees to make good, without cost to the client, any defect that may be chargeable to inferior material or workmanship.

Standard Sizes

Mundet "Jointite" Corkboard is furnished in the following sizes: 1/2, 3/4, 1, 1 1/2, 2, 3, 4 and 6 in. thick. All sheets are 12 in. wide and 36 in. long.

Weight of Corkboard

Mundet "Jointite" Corkboard weighs approximately .75 lb. per sq. ft. per 1 in. thick (board measure) when shipped in bulk but when packed in cartons it weighs approximately .90 lb. per sq. ft. per 1 in. thick.

TABLE OF THICKNESSES RECOMMENDED TO BE USED FOR COLD STORAGE WORK AS INSULATION FOR VARIOUS TEMPERATURES

Range of temperature	Walls, in.	Ceilings, in.	Floor on ground, in.	Floor above ground, in.	Roofs, in.
Below 0° F.	8	8	7	8	9
0° to 10° F.	7	7	6	7	8
10° to 20° F.	6	6	5	6	7
20° to 35° F.	5	5	4	5	6
35° to 50° F.	4	4	3	4	5
50° to 60° F.	3	3	2	3	4
Above 60° F.	2	2	0	2	2

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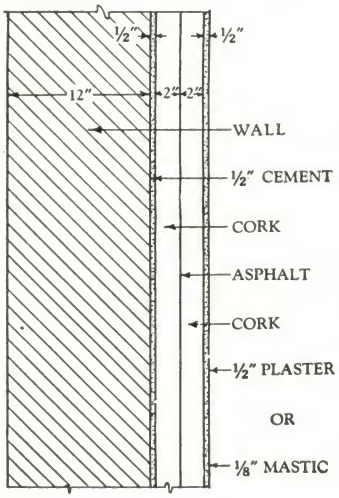
GENERAL COLD STORAGE INSULATION

Specification No. 1—Masonry Walls, Brick, Concrete, Hollow Tile

(Where First Course is Erected in Cement Mortar)



The walls shall be insulated with .... in. of "Jointite" Corkboard, applied in two courses of .... in. each. The first course of corkboard shall be erected against the walls in a ½-in. bed of portland cement mortar.

Note (1): If walls are of concrete, specify that they shall be thoroughly hacked in order to provide a good bond.

The second course of corkboard shall then be applied against the first course in a heavy dip coat of hot asphalt and additionally secured to the first course with hard wood skewers of suitable length. All joints shall be broken relative to adjacent layers and to the preceding course. The exposed cork surfaces shall be finished with a ½-in. plaster finish applied in two coats; the first coat to be a rough or scratch coat and the second coat to be brought to a float (or trowel) finish and marked off in squares of approximately 4 ft. in order to minimize and direct shrinkage cracks.

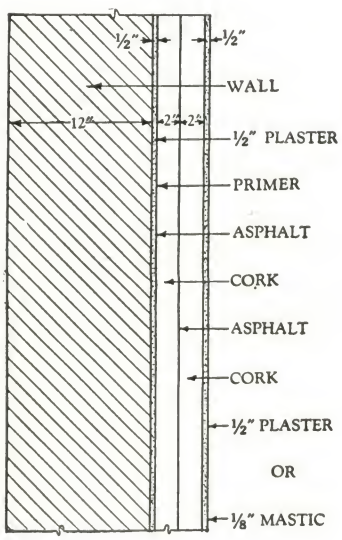
Note (2): If mastic finish is desired in place of plaster finish, omit the last paragraph above and substitute as follows:

The exposed cork surface shall be finished with a ⅛-in. cold mastic finish consisting of a brush or spray application of Mundet Asphalt Emulsion, followed by a trowel application of Mundet Asphalt Emulsion mixed with asbestos and clean screened sand in the following proportions, viz., 50 gal. of emulsion to 100 lb. of asbestos floats to 4 cu. ft. of sand. (This finish is black in color and may be painted if desired.)

Specification No. 2—Masonry Walls, Brick, Concrete, Hollow Tile

(Where First Course is Erected in Hot Asphalt)

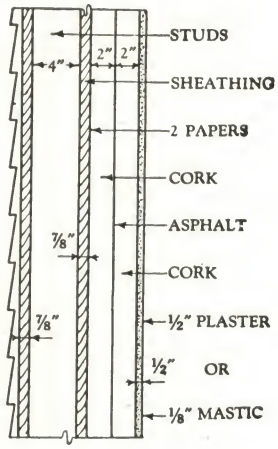
The walls shall first be given a single coat of portland cement plaster left under the float.



Note (1): If walls are of concrete, specify that they shall be thoroughly hacked in order to provide a good bond.

After the plaster coat has set, the walls shall be given two spray, or brush, coats of Mundet Asphalt Primer, following which the walls shall be insulated with .... in. of "Jointite" Corkboard applied in two courses. The first course of corkboard shall be applied against the walls in a dip coat of hot asphalt. The second course and the finish shall be as stipulated in Specification No. 1.

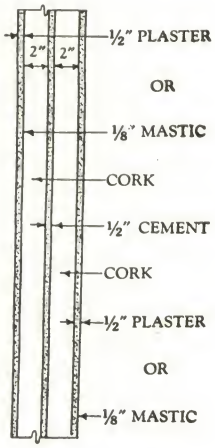
Specification No. 3—Wood Frame Walls



Two courses of waterproof insulation paper shall be securely tacked against the sheathed surfaces, after which the walls shall be insulated with .... in. of "Jointite" Corkboard applied in two courses. The first course of corkboard shall be nailed dry to the wall with the galvanized wire nails made especially for this type of work. The second course of corkboard shall be applied against the first course in a heavy dip coat of hot asphalt, and additionally secured with hard wood skewers of suitable length. All joints shall be broken with respect to adjacent layers and to the preceding course. The finish shall be as provided in Specification No. 1.

Specification No. 4—Cork Partitions

(Cement Mortar)

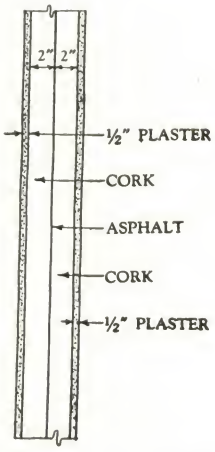


The partitions shall be of the solid cork and cement self-sustaining type, and shall be fabricated of two courses of .... in. "Jointite" Corkboard. The first course of corkboard shall be erected against temporary studding and the second course shall be erected against the first in a ½-in. bed of portland cement mortar, and additionally secured with hardwood skewers of suitable length. All joints shall be broken relative to adjacent layers and to the preceding course. The exposed surfaces shall be finished as provided in Specification No. 1.

Specification No. 5—Cork Partitions

(Hot Asphalt)

The partitions shall be of the solid cork and cement self-sustaining type, and shall be fabricated of two courses of .... in "Jointite" Corkboard. The first course of corkboard shall be erected against temporary studding and the second course shall be erected against the first in a dip coat of hot asphalt, and additionally secured with hard wood skewers of suitable length.



All joints shall be broken relative to adjacent layers and to the preceding course. The exposed cork surfaces shall be finished with ½ in. of portland cement plaster mixed 1:2, applied in two coats; the first coat to be a rough or scratch coat and the second coat to be brought to a float (or trowel) finish and marked off in squares of approximately 4 ft. in order to minimize and direct shrinkage cracks.

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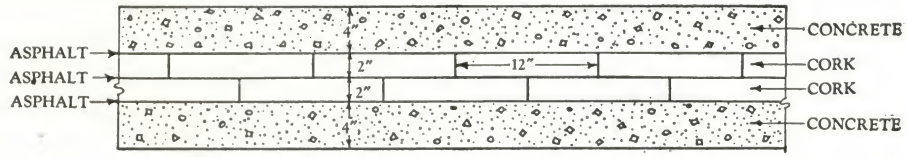
Specification No. 6—Concrete Floors, Concrete Base

The floor shall be insulated with .... in. of "Jointite" Corkboard applied in two courses. The first course shall be laid down in a heavy mop coat of hot asphalt and the second course shall be laid upon the first in like manner, with all joints broken relative to the first course. The exposed top of the corkboard shall then receive a heavy mop coat of hot asphalt which shall thoroughly seal all joints.

A concrete wearing floor .... in. thick shall be laid upon the corkboard. The first .... in. shall be gravel or rock concrete mixed . . : . . : . . followed by a 1-in. cement top mixed 1 : 2 and floated and troweled to a smooth and even finish. The floor shall be pitched to floor drains.



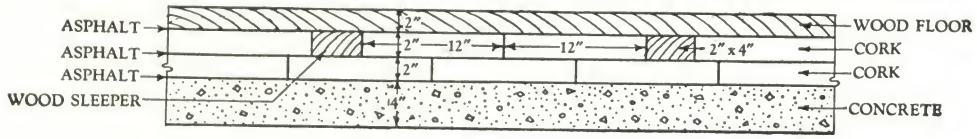
Specification No. 7—Wood Floors, Concrete Base

The floors shall be insulated with .... in. of "Jointite" Corkboard in two layers as provided in Specification No. 6.

Over the first course of corkboard there shall be laid ....x4-in. wood sleepers on 28-in. centers, all securely mopped in.

The exposed cork surface shall then receive a heavy mop coat of hot asphalt which shall thoroughly seal all joints.

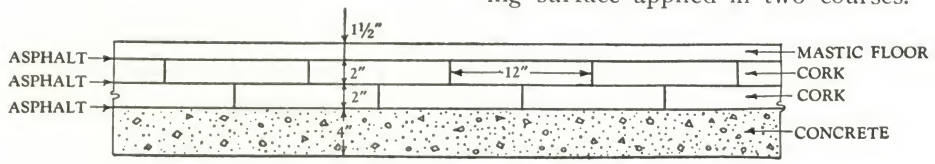
A wearing floor of 2x.... in. long leaf yellow pine shall then be applied, securely nailed to the sleepers provided in the top layer of corkboard.



Specification No. 8—Mastic Floors, Concrete Base

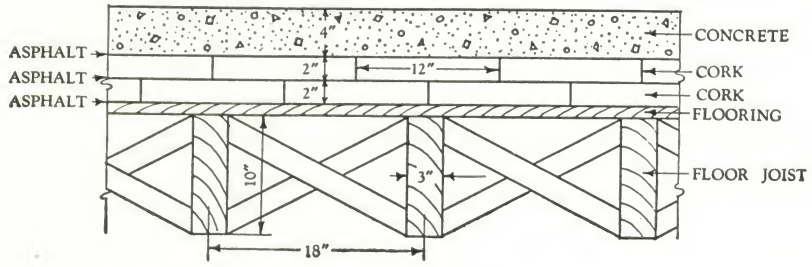
The floor insulation shall be laid as in Specification No. 6.

The finish floor shall consist of a 2-in. mastic wearing surface applied in two courses.



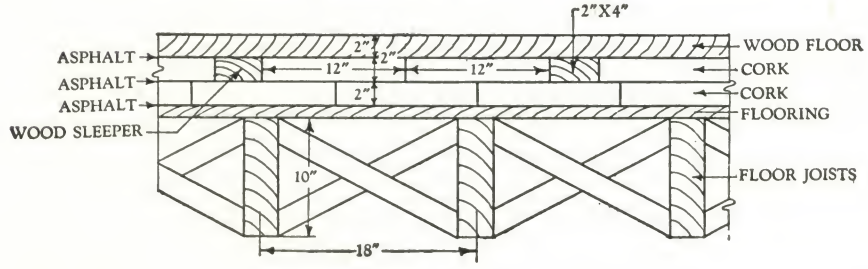
Specification No. 9—Concrete Floors, Wood Base

The floor shall be insulated as in Specification No. 6.



Specification No. 10—Wood Floors, Wood Base

The floors shall be insulated as in Specification No. 7.



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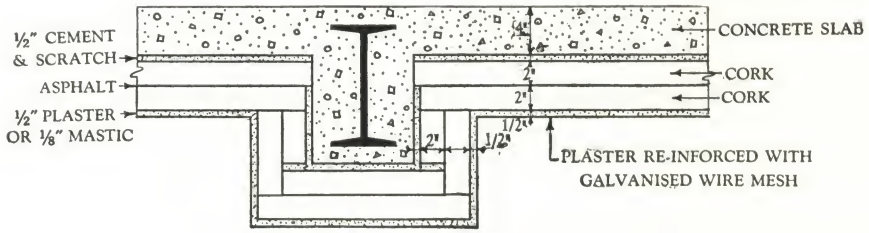
Specification No. 11—Ceilings, Concrete

The ceiling shall be insulated with ... in. of "Jointite" Corkboard applied in two courses. The soffit of ceiling slab shall first be thoroughly hacked and pitted and shall then receive a tight scratch coat of portland cement mortar.

The first course of corkboard shall then be applied in a ½-in. bed of portland cement mortar and securely propped in place until the cement has set. The second course of corkboard shall then be applied against the first course in a heavy dip coat of hot asphalt, and additionally secured with hardwood skewers of suitable length. All joints shall be broken relative to adjacent layers and to the preceding course.

The exposed cork surfaces shall be finished as provided in specification No. 1.

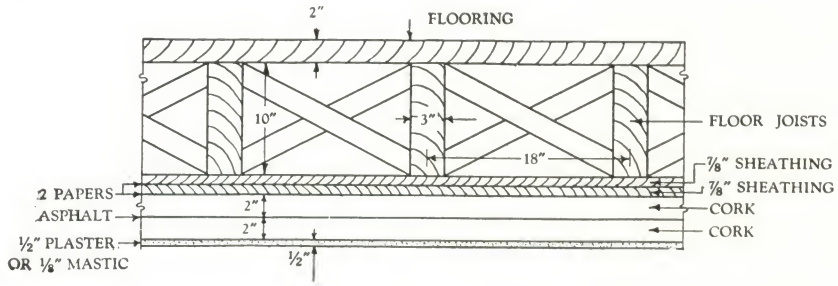
Note: If plaster finish is desired it is recommended that No. 19-gauge galvanized wire mesh having two meshes to the inch be securely stapled to the cork surfaces before plaster finish is applied.



Specification No. 12—Ceilings, Wood

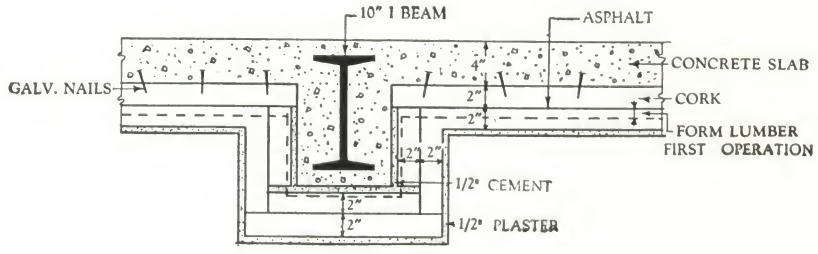
The ceiling shall be insulated with ... in. of "Jointite" Corkboard in two courses over wood sheathing.

Two layers of ⅞-in. tongued and grooved sheathing shall be installed on the underside of ceiling joists with two layers of waterproof insulation paper between the sheathing courses, and two layers of waterproof insulation paper securely tacked to the underside of the sheathing. On the ceiling surface thus prepared shall be erected the first layer of corkboard, nailing each piece securely in place. The second course of corkboard shall then be applied against first course in a dip coat of hot asphalt and finished as provided in Specification No. 1.



Specification No. 13—Ceilings (New Buildings) Concrete

The ceilings shall be insulated with ... in. of "Jointite" Corkboard applied in two courses. The general contractor will lower the forms of the slab construction a distance sufficient to allow the first course of corkboard to be laid dry in the forms. There shall be at least six special galvanized nails placed in each sheet of corkboard laid in forms with the heads protruding not less than 1½ in., to act as a key in the concrete. After the forms are stripped the second course of corkboard and both courses of corkboard on the beams and girders shall be applied and finished as in Specification No. 11.



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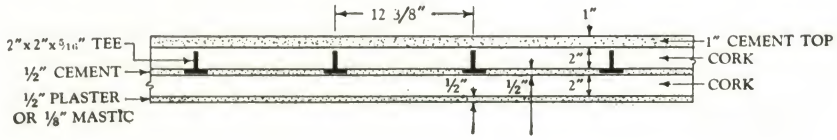
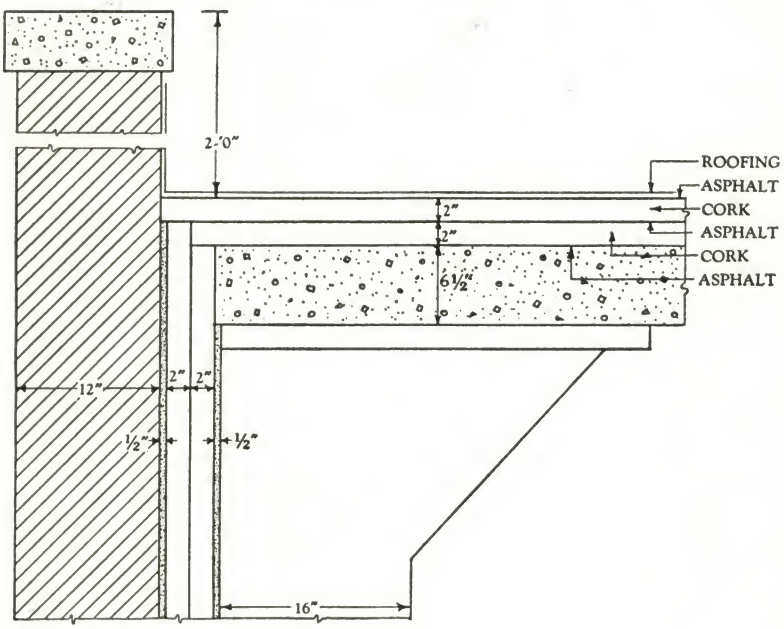
Specification No. 14—Ceilings, False T Iron

The ceilings shall be insulated with . . . in. of "Jointite" Corkboard applied in two courses. A framework consisting of 2x2x.. in. tee irons spaced on 12½-in. centers, shall be erected upon 2x2-in. wood framing concealed in the cork wall insulation. The first course of corkboard shall be placed between the tee irons after all edges have been dipped in hot asphalt. The second course of corkboard shall be applied against the underside of the first course in a ½-in. bed of portland cement mortar, and additionally secured with hardwood skewers of suitable length. All joints in the second course shall be broken relative to adjacent layers and to the first course. The top exposed surface of the corkboard shall be finished with 1 in. of portland cement plaster left under the float. The underside of the insulation shall be finished as provided in Specification No. 1.

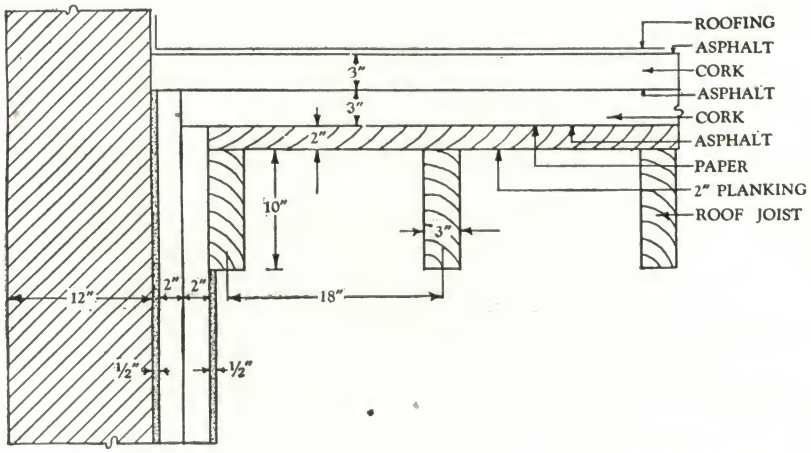


Specification No. 15—Roofs, Concrete

The roof slab shall be insulated with . . . in. of "Jointite" Corkboard applied in two courses. The first course of corkboard shall be laid down on the concrete slab in a heavy mop coat of hot asphalt, and against it a second course of corkboard shall be applied in like manner. All joints shall be broken relative to adjacent layers and to the preceding course. The exposed cork surfaces are to remain uncoated and left ready for the roofing contractor to lay his roofing. The cork contractor and the roofing contractor shall co-operate with each other in order that all insulation laid in any one day will be protected with at least two-ply roofing.



Specification No. 16—Roofs, Wood

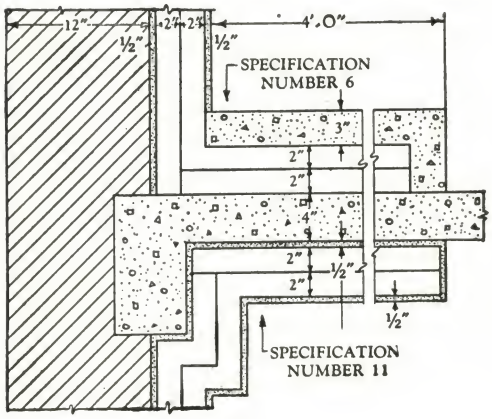


The roof shall be insulated with . . . in. of "Jointite" Corkboard applied in two courses. Over the roof planking shall be laid one course of waterproof insulation paper with the seams lapped at least 3 in. and mopped in with hot asphalt. The cork insulation shall then be applied as in Specification No. 15.

Continued on next page

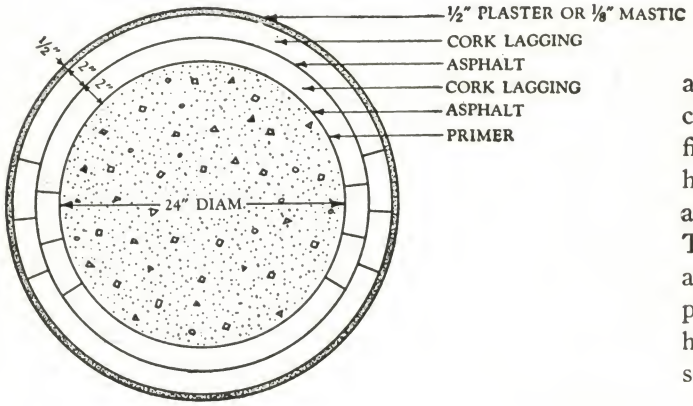
LAP OR RIBBON INSULATION

Used Where Continuous Insulation Is Not Obtainable

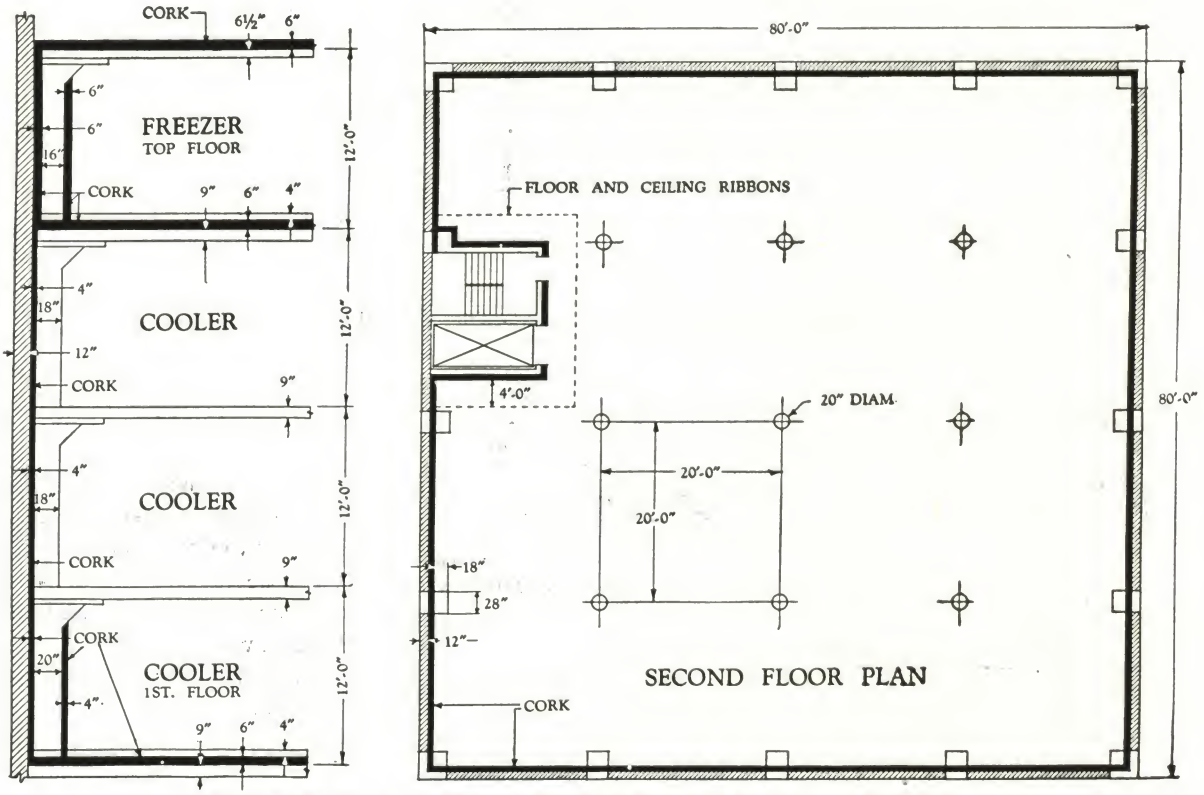


Ribbon insulation is the form shown on the accompanying sketch. It consists of insulation either on floor or ceiling which extends out to a limited distance only from the wall line. It is used where conditions make it impossible to provide continuous insulation. The ribbon insulation must be carried around beams and girders. For specifications, see notes on cut.

Specification No. 17—Circular Columns



The circular columns shall be insulated with .....in. of "Jointite" Corkboard bevelled lagging, applied in two courses. The column surfaces shall receive a single coat of Mundet Primer, after which the first course of lagging shall be applied in a dip coat of hot asphalt. Each lag shall be securely locked to the adjacent lags with hard wood skewers of suitable length. The second course of lagging shall then be applied against the first course in a heavy dip coat of hot asphalt, and additionally secured to the first course with hard wood skewers of suitable length. The exposed cork surfaces shall be finished as in Specification No. 1.



Typical Section and Plan of Building Showing Continuous Installation

Continued on next page

Specification No. 18—Coil Bunker Construction

A coil loft or bunker shall be constructed, supported on ...x... in. timbers spaced 20 in. apart (Item 1), which shall be suitably supported in walls.

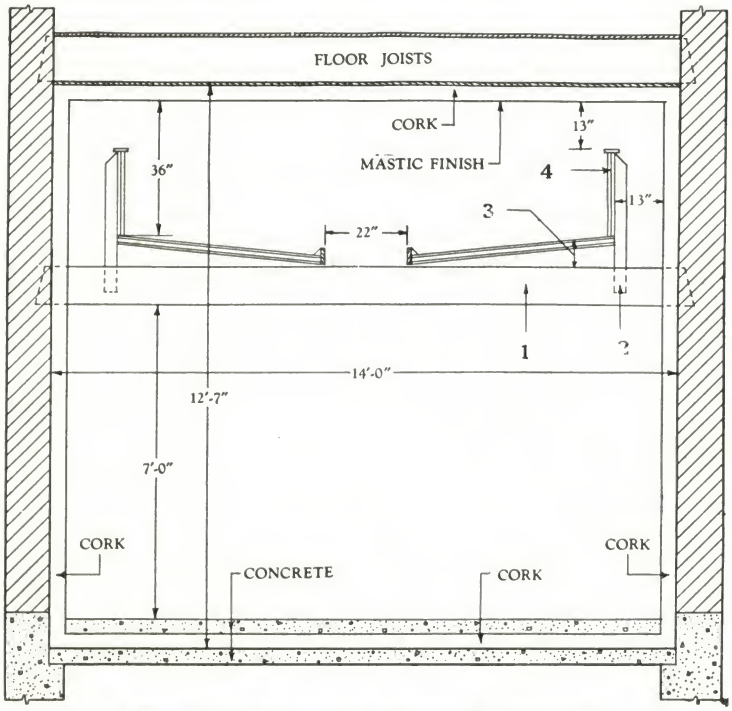
Wood cleats 2x4 in. (Item 2), shall then be securely bolted to the sides of the timbers and will act as supports for the warm air baffles (Item 4).

The top of the timbers shall then be given the correct slope by nailing tapered strips, which shall be the width of the timber and shall vary from 3 in. high at the outside end to 1 in. at the inside. These tapered strips shall then be sheathed with 7/8-in. tongued and grooved sheathing of spruce or cypress, over which shall be laid two courses of waterproof insulation paper, followed by a single course of 2-in. corkboard, laid down in and coated with hot asphalt.

In the corkboard shall be buried 2x2-in. wood sleepers on 26-in. centers, which will act as nailing strips for the 7/8-in. tongued and grooved sheathing which shall be placed over the corkboard together with two layers of waterproof insulation paper, all securely nailed to the sleepers (Item 3). The top surface of bunker floor shall then be covered with No. 24-gauge galvanized iron (or copper) lining flashed up on the warm air baffles a distance of 12 in., and provided at the low point with a scupper for drainage connection. The baffles shall be constructed of two courses of 7/8-in. tongued and grooved sheathing with two layers of waterproof insulation paper between them, all securely nailed to the wooden cleats mentioned above (Item 4).

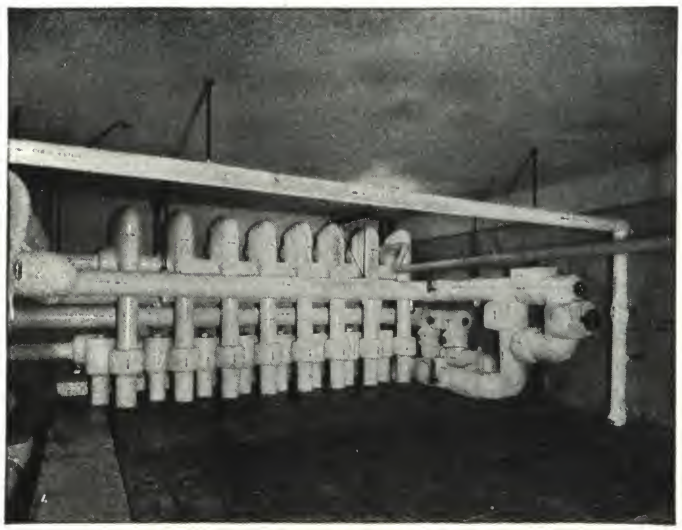
The edges of the cold air duct shall be formed with 2x8-in. timbers securely fastened to the bunker timbers. The metal lining of the bunker shall extend over these timbers and shall be lapped vertically downward at least 2 in.

Note: For rooms having less than 8 ft. inside clear width, it is customary to use a single bunker pan. In rooms of greater than 8-ft. width the double bunker pan illustrated should be used. It is customary to make the total duct widths equal to about 30% of total width of room.



Section Showing Coil Bunker Construction

"JOINTITE" MOULDED CORK PIPE COVERING



New York State Psychiatric Institute and Hospital, New York, N. Y.

All the insulating qualities of cork hereinbefore explained for cold storage, and its resistance to heat transmission generally, apply equally to its value as insulation for cold piping. It affords the most efficient and permanent means for protecting cold water, brine, and ammonia pipe lines and fittings.

"Jointite" Moulded Cork Pipe Covering is made of pure granulated cork compressed and moulded in forms and baked as described for corkboard. Following the baking process each piece of pipe covering is covered all over with a mineral rubber finish which prevents damage from moisture or frost.

Various moulded shapes are made both for pipe and fittings so that all parts of the pipe lines may be neatly and adequately covered.

Continued on next page

Suggested Thickness

Note: The numbered items shown below are for coverings of various standard thicknesses and for purposes as indicated. Reference will be made to this list in specification text.

(1) Ice Water Covering for lines where temperatures of 30° F. and higher are carried.

(2) Standard Brine Cork Covering for ammonia and brine lines where temperature ranges from 5° F. to 30° F.

(3) Special Thick Covering for temperatures below 5° F.

Specification A

Note: The following specification is used more than any other, covering probably 75% of all pipe covering installations.

Pipe—After the pipe lines have been tested and approved, they shall be insulated with "Jointite" [(1), (2) or (3)] Cork Pipe Covering. All contact joints shall be sealed with Mundet Waterproof Cement. All contact joints shall be butted closely and firmly together and secured with copper clad steel wire, spaced at intervals of not more than 6 in. All seams shall be horizontal. All mated sections shall be used together. The so-called "broken joint" method must not be used.

Fittings—The fittings shall be insulated with "Jointite" Moulded Cork Fitting Covers of a thickness to match the above pipe covering. All contact joints shall be sealed with Mundet Waterproof Cement. All joints shall be butted closely and firmly together and secured with not less than four copper clad steel wires. On all flanged fittings and on all screwed fittings larger than 6 in., not less than six wires shall be used.

Voids—All spaces between fittings and fitting covers shall be filled with either Mundet Brine Putty or Fine Regranulated Cork.

Seams—All seams and chipped edges in the fitting covers and pipe covering shall be filled with Mundet Seam Filler and the surface made smooth.

Finish—The entire outer surface of the insulation shall receive one coat of Mundet Finish Paint.

Hangers—Pipe Lines shall be supported, in every case, outside of the covering and shall be protected by carefully fitted metal shields extending 4 in. on each side of the hanger. The shield shall embrace the entire lower semicircle.

Spacing—Minimum spacing between pipes and adjacent surfaces shall be as follows:

Thickness		Clear space between pipes, in.	Clear space between pipes and walls, etc., in.
Brine	Screwed fittings under 6 in.	8	6
	Screwed fittings over 6 in. and flanged fittings	14	8
Special thick	Screwed fittings under 6 in.	10	8
	Screwed fittings over 6 in. and flanged fittings	18	12
Ice water thick	Screwed fittings under 6 in.	6	4
	Screwed fittings over 6 in. and flanged fittings	10	5

Specification B

Note: For use in hotel kitchens, damp cellars, creameries, packing houses, etc., and wherever the atmosphere is saturated with moisture or steam. Essential for outdoor pipe lines where the cork covering is exposed to the weather.

Pipe, Fittings, Voids, Seams—*Note:* Specifications under these headings same as Specification A.

Roofing—After the seams have been filled, there shall be applied ... layers of ... ply smooth surfaced roofing. Each joint shall be lapped not less than 2 in. The laps shall be sealed with asphalt paint and secured with staples or copper clad steel wire. All laps shall be laid in such a manner as to form a watershed.

Finish, Hangers, Spacing—*Note:* Specifications under these headings same as Specification A.

Specification C

Note: A canvas and paint finish for neatness and to harmonize with surrounding decorations or equipment.

Pipe, Fittings, Voids, Seams—*Note:* Specifications under these headings same as Specification A.

Canvas—After the seams have been filled, the pipe covering shall be wrapped with No. 8 Rosin Sized Paper, and the fittings shall be given a coat of asbestos cement, troweled on, and of sufficient thickness to give a smooth base for canvas. Over the pipe and fittings, a jacket of 8-oz. canvas shall be neatly sewn, using not less than three stitches to the inch. All seams shall be located along the line of minimum visibility.

Finish—The canvas jacket shall be sized and painted with two coats of lead and oil paint.

Hangers, Spacing—Specification under this heading, same as Specification A.

Specification D

Note: Unsurpassed for low temperature piping, and offering an ideal surface protection to the mineral rubber finish on cork pipe covering.

Pipe, Fittings, Voids, Seams—Specifications under these headings same as Specification A.

Membrane Jacket—Over the fittings there shall be applied a layer of mineral rubber cloth, lapped not less than 2 in. and sealed with asphalt paint. Starting with a 2-in. lap upon the fittings, the straight pipe shall be wrapped spirally with a layer of rubberized adhesive membrane tape lapped not less than 1 in.

Finish—Finish to be either as in Specification A or Specification C.

Hangers, Spacing—Specifications under this heading same as Specification A.

"JOINTITE" CORK LAGGING

We make moulded cork lagging and discs for the insulation of cylindrical tanks and coolers. The lagging is cut to order to any desired radius. If desired, the lagging can be furnished with a ⅛-in. mastic coating, ironed in at the factory.

Suggested Thickness

Note: The numbered items shown below are for covering of various standard thicknesses and for purposes as indicated. Reference will be made to this list in specification text.

(1) Above 40° F. — 2 in. of lagging
(2) Above 25° F. and below 40° F. — 3 in. of lagging
(3) Above 10° F. and below 25° F. — 4 in. of lagging } Applied in
(4) Below 10° F. — 6 in. of lagging } two courses

Continued on next page

Specification E

Note: This specification is usually used in conjunction with Specification A.

Lagging—*(1) Tank Surfaces*—After the cooler or tank has been tested and approved, the body of the tank shall be insulated with [see items (1), (2), (3) and (4)] ..... in. of "Jointite" Beveled Cork Lagging, applied in ..... courses. The first course shall be applied against the tank (with or without mineral rubber finish on the inside), with all contact joints firmly and securely butted together and sealed wtih Mundet Waterproof Cement. The lagging shall be further secured with copperclad steel wire spaced at intervals of not more than 6 in. The second course of lagging shall then be applied against the first course in the same manner as above with all joints in the lagging broken with respect to the first.

(2) Flanges—The flanges shall be insulated in the same manner as the tank surfaces. The flange lagging shall lap upon the body lagging for 12 in. and shall project beyond the outermost portion of the head, a distance equal to the thickness of the tank insulation.

Discs—The heads shall be insulated with "Jointite" Corkboard Discs of the same total thickness as the tank insulation (with or without mineral rubber finish on the inside ironed on at the factory). The discs shall be applied directly against the head of the tank and supported by the flange lagging.

Voids—Any spaces between the lagging and the tank body shall be filled with Mundet Brine Putty. The spaces between the bolts and flanges shall be filled with Mundet Brine Putty. The spaces between the heads and the flanges shall be filled with fine regranulated cork.

Finish—The entire outer surface of the insulation shall have a mineral rubber finish ironed on at the factory. After the insulation is completed all seams and chipped edges shall be filled with Mundet Seam Filler.

Painting—The entire outer surface shall receive one coat of Mundet Finish Paint.

Specification F

Note: This specification is often used in conjunction with Specification C.

Lagging, Discs, Voids, Finish—*Note:* Specifications under these headings same as Specification E.

Canvas—After the seams have been filled, the outer surface of the tank shall be covered with a layer of No. 8 Rosin Sized Paper. Over the paper shall be sewn a jacket of 8-oz. canvas. All seams shall be of the invisible type and shall have not less than three stitches to the inch.

Painting—The canvas shall be sized and painted with two coats of lead and oil paint.

Specification G

Note: This specification is very commonly used where a neat appearance, plus the ability to withstand a certain amount of rough usage is desired.

Lagging—*(1) Tank Surfaces*—After the cooler or tank has been tested and approved, the body shall be insulated with ..... in. of "Jointite" Beveled Cork Lagging applied in ..... courses. The first course shall be applied against the tank (with or without mineral rubber finish on the inside), with all contact joints firmly and securely butted together. The lagging shall be secured with copper clad steel wire spaced at intervals of not more than 6 in. The second course of lagging shall then be applied against the first course in the same manner as above with all joints in the lagging broken with respect to the first course.

(2) Flanges—The flanges shall be insulated in the same manner as the tank surfaces. The flange lagging shall lap upon the body lagging for 12 in. and shall project beyond the outermost portion of the head a distance equal to the thickness of the tank insulation.

Discs, Voids, Finish—Specifications under these headings same as Specification E.

Plaster—After the seams have been filled, the outer surface of the insulation shall be covered with a layer of 1-in. hexagonal mesh galvanized wire, securely stapled to the insulation. Over the wire shall be applied two coats of portland and asbestos cement plaster. The first coat shall be a rough or scratch coat; the second coat shall be troweled to a smooth and even finish.

Painting—Optional.

New York Life Insurance Co. Building, New York, N. Y.

Erected on site of the old Madison Square Garden. All cold lines are insulated with Mundet "Jointite" Moulded Cork Covering

Continued on next page

ROOF INSULATION

Insulation of Roofs to Prevent Condensation

It is our purpose to show under this heading the great value of proper insulation applied to roofs, in order that the annoying and frequently expensive problem of ceiling "sweat," or condensation, may be overcome.

It is generally recognized today that correct building design must include insulation. The heat transmitted from uninsulated roofs in the winter results in a needless loss, the cost of which comes to a staggering total.

In the summer, these same roofs absorb a tremendous amount of heat and deliver it to the rooms below, thus causing discomfort to, and impairing the efficiency of, people who are working in these areas. In certain commercial plants where the humidity and often the temperature must be governed at a high point, due to the processes of manufacture, an uninsulated roof will inevitably chill the air in its vicinity during the winter months to the point where some of its moisture condenses and forms what is commonly known as ceiling "sweat." The moisture drops to the floor, producing a most annoying condition to people who are working in the room and often causing damage to property, since it will drop upon any materials and machinery that may be underneath. The loss due to condensation must be considered separately from the direct loss due to heat leakage through the roof, the latter being present in all uninsulated construction while the former appears only when the humidity is relatively high or when the difference in temperature between the inside of the roof and the room is of considerable magnitude.

Numerous industries are in the position of, for example, textile mills, which have, as one of the prerequisites for proper manufacturing, a high degree of relative humidity. Many textile mills are located in New England, and in winter are operating with a great variation between the inside and outside temperatures of their buildings. Unless these buildings are insulated, the walls and roofs become very much colder, on the inside, than the surrounding air. This cold is transmitted to the adjacent air, which, upon cooling, reaches the point of total saturation, or dewpoint, and deposits its moisture upon the cold surfaces, from which come the drip. The resultant losses may be grouped as follows:

(1) Direct losses.
  (a) Heat transmitted through roof and walls.
  (b) Damage to goods in process of manufacture.
  (c) Decreased efficiency of labor.

(2) Indirect losses.
  (a) Damage to machinery.
  (b) Deterioration of buildings, particularly of wooden construction.
  (c) Lowered morale of labor due to unpleasant working conditions.

Unfortunately, it is only recently that industry has begun to subject its inherited losses to a careful scrutiny. In the past, ceiling condensation was regarded as a necessary evil, and an inevitable concomitant of high relative humidity. Advanced engineering practice in new buildings, however, has demonstrated its worth to the point where manufacturers have begun to realize that their old equipment cannot compete with new equipment unless it is brought up to date. However, the tendency to maintain a given status quo, plus the inhibition against spending money upon old equipment, has produced a considerable inertia. It is for this reason that all roofs are not insulated, although there have been instances without number where cork insulation has been installed in an existing plant and has paid for itself within two or three years in the single item of coal required for heating.

When bringing to the attention of manufacturers the need for cork insulation in buildings, the greater stress has been laid upon the resultant saving in fuel. Today, however, industrial executives in ever increasing numbers are realizing that a most important factor in their problem of keeping costs at a minimum is the attitude of their labor. A worker is never efficient when he is uncomfortable, and therefore the use of insulation, while it may be considered as an intangible benefit from this angle, is nevertheless of vital import.

The other factors that go to make up the losses in uninsulated construction depend entirely upon individual cases, and it is difficult to evaluate them in general terms, but it is reasonable to conclude that they are present in all cases to a greater or less degree and must eventually appear in the costs of manufacture.

Mention was made, in the foregoing text, of the losses caused by condensation in the textile industry; but it must not be assumed that this industry stands alone. Below are listed a number of types of buildings that are prone to condensation troubles.

Bakeries
Creameries
Laundries
Lumber drying rooms and kilns
Packing houses
Killing rooms
Paper mills
Power houses
Swimming pools
Textile mills—cotton, wool and silk
Tobacco factories
Turkish baths
Twine mills

Thickness of Corkboard Needed

It has already been shown that cork is the ideal insulation for this work. The next important thing to determine is the thickness of corkboard that must be used.

There is no rule of thumb by which it is possible to determine what thickness of cork insulation is required for any given roof. The thickness of insulation is an exact function of the humidity present, the nature of the wall or roof construction, its own co-efficient of heat transmission, and the maximum temperature difference on the two sides of the building construction. In order to facilitate the determination of the correct thickness of corkboard insulation for roofs, a special chart has been included in this section (see page 13) upon which it is possible to read directly the permissible heat loss for any given set of conditions. Upon page 12 will be found a table showing the heat loss of all common types of roof construction. Under each type is shown the heat loss of that construction with various thicknesses of "Jointite" Corkboard Insulation. Typical cases are also shown graphically in illustrations on page 15.

The easiest way of demonstrating the use of the chart, table and illustrations will be to show the working of an actual case. Following is a typical problem: A manufacturing plant is equipped with a 3-in. yellow pine roof and standard 5/8-in. built-up roofing. The inside temperature (dry bulb) at the ceiling is 70° F., the relative humidity is 80%, and the lowest temperature during the winter is minus 10° F.

Locate the line of 70° upon the room temperature scale at the top of the chart and follow down to the 80% relative humidity diagonal. Follow horizontally

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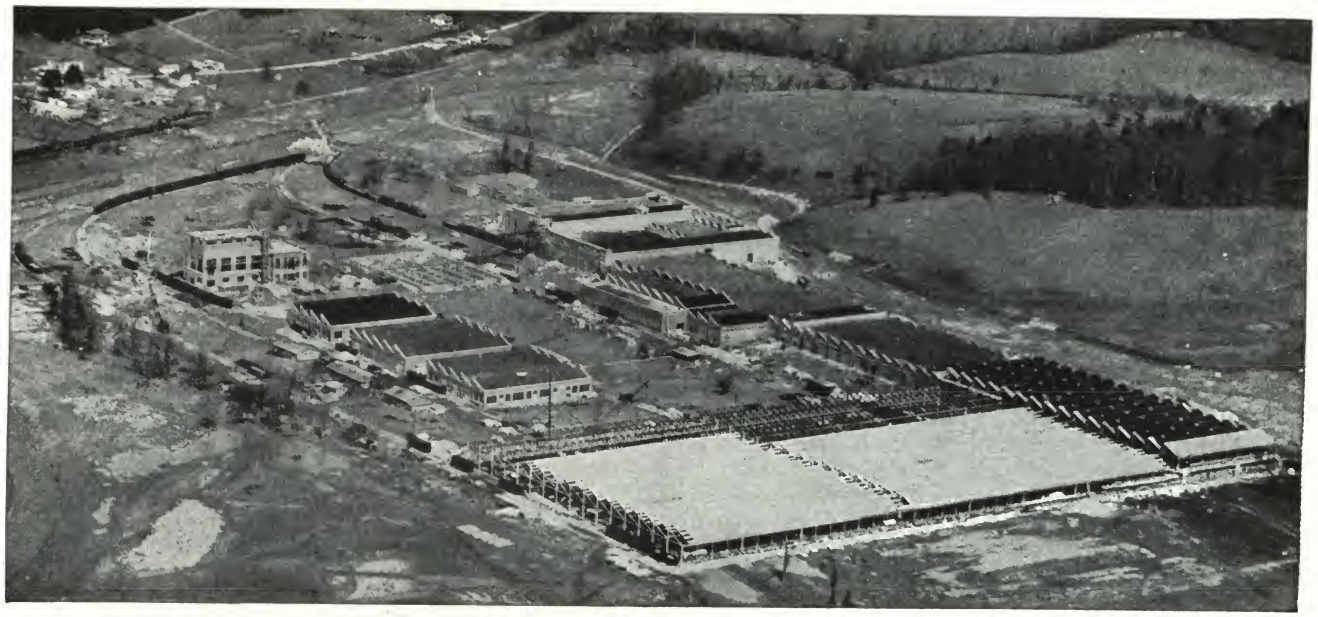

Airplane View of the American Enka Corporation's Plant at Asheville, N. C.
Showing clearly the 75 acres occupied by the plant and the great area of sawtooth and flat roofing, all of which was insulated by Mundet "Jointite" Corkboard

across the chart to the line of 80° maximum temperature difference on the lower scale. Interpolation between the bounding heat loss diagonal lines will show the heat loss to be .124. Referring to the heat transmission table, we find that in connection with a 3-in. yellow pine roof and ⅝-in. built-up roofing, 1½ in. of Mundet "Jointite" Corkboard will give sufficient insulation to preclude the possibility of condensation for the above set of conditions.

Specifications

Note: The following specifications will be found to cover the usual typical cases of roof insulation:

(1) On Wood Deck Construction—On top of wood deck, first apply a single layer of ..... roofing felt laid in hot asphalt with joints lapped 3 in. Following this lay one course of .... in. Mundet "Jointite" Corkboard, laid in a heavy mop coat of hot asphalt, the exposed cork surfaces to be left dry, ready for the application of the roofing.

(2) Over Concrete Construction—On top of the concrete roof slab first apply two coats of asphalt primer, following which .... in. Mundet "Jointite" Corkboard is to be laid in a heavy mop coat of hot asphalt, the exposed cork surfaces to be left dry, ready for the application of the roofing.

(3) Over Steel Roof Decks—On top of steel deck lay one course of .... in. Mundet "Jointite" Corkboard, laid in a heavy mop coat of hot asphalt, the exposed cork surfaces to be left dry, ready for the application of the roofing.

Note: Should roof insulation consist of two-layer work, the second course shall be applied on top of the first course in a dip coat of hot asphalt, with all transverse joints broken.

Laying Cork Insulation on Roof

Continued on next page

HEAT TRANSMISSION

TABLE SHOWING HEAT LOSSES THROUGH ROOFS

Construction	Transmission in B.t.u. per sq. ft. per degree difference in temperature per hour
2-in. concrete slab and roofing, no insulation	.658
2-in. concrete slab and roofing, 1 -in. Jointite Corkboard	.206
2-in. concrete slab and roofing, 1½-in. Jointite Corkboard	.153
2-in. concrete slab and roofing 2 -in. Jointite Corkboard	.122
2-in. concrete slab and roofing, 3 -in. Jointite Corkboard	.087
2-in. concrete slab and roofing, 4 -in. Jointite Corkboard	.067
3-in. concrete slab and roofing, no insulation	.610
3-in. concrete slab and roofing, 1 -in. Jointite Corkboard	.201
3-in. concrete slab and roofing, 1½-in. Jointite Corkboard	.151
3-in. concrete slab and roofing, 2 -in. Jointite Corkboard	.120
3-in. concrete slab and roofing, 3 -in. Jointite Corkboard	.086
3-in. concrete slab and roofing, 4 -in. Jointite Corkboard	.067
4-in. concrete slab and roofing, no insulation	.568
4-in. concrete slab and roofing, 1 -in. Jointite Corkboard	.197
4-in. concrete slab and roofing, 1½-in. Jointite Corkboard	.148
4-in. concrete slab and roofing, 2 -in. Jointite Corkboard	.118
4-in. concrete slab and roofing, 3 -in. Jointite Corkboard	.085
4-in. concrete slab and roofing, 4 -in. Jointite Corkboard	.066
6-in. concrete slab and roofing, no insulation	.500
6-in. concrete slab and roofing, 1 -in. Jointite Corkboard	.187
6-in. concrete slab and roofing, 1½-in. Jointite Corkboard	.143
6-in. concrete slab and roofing, 2 -in. Jointite Corkboard	.115
6-in. concrete slab and roofing, 3 -in. Jointite Corkboard	.083
6-in. concrete slab and roofing, 4 -in. Jointite Corkboard	.065
2-in. Yellow Pine and roofing, no insulation	.345*
2-in. Yellow Pine and roofing, 1 -in. Jointite Corkboard	.160
2-in. Yellow Pine and roofing, 1½-in. Jointite Corkboard	.127
2-in. Yellow Pine and roofing, 2 -in. Jointite Corkboard	.105
2-in. Yellow Pine and roofing, 3 -in. Jointite Corkboard	.078
2-in. Yellow Pine and roofing, 4 -in. Jointite Corkboard	.062
3-in. Yellow Pine and roofing, no insulation	.256*
3-in. Yellow Pine and roofing, 1 -in. Jointite Corkboard	.138
3-in. Yellow Pine and roofing, 1½-in. Jointite Corkboard	.112
3-in. Yellow Pine and roofing, 2 -in. Jointite Corkboard	.095
3-in. Yellow Pine and roofing, 3 -in. Jointite Corkboard	.072
3-in. Yellow Pine and roofing, 4 -in. Jointite Corkboard	.058
Sheet steel deck and roofing, no insulation	1.000†
Sheet steel deck and roofing, 1 -in. Jointite Corkboard	.231
Sheet steel deck and roofing, 1½-in. Jointite Corkboard	.167
Sheet steel deck and roofing, 2 -in. Jointite Corkboard	.130
Sheet steel deck and roofing, 3 -in. Jointite Corkboard	.091
Sheet steel deck and roofing, 4 -in. Jointite Corkboard	.067
4-in. hollow tile, ⅝-in. roofing, no insulation	.485‡
4-in. hollow tile, ⅝-in. roofing, 1 -in. Jointite Corkboard	.187
4-in. hollow tile, ⅝-in. roofing, 1½-in. Jointite Corkboard	.142
4-in. hollow tile, ⅝-in. roofing, 2 -in. Jointite Corkboard	.114
4-in. hollow tile, ⅝-in. roofing, 3 -in. Jointite Corkboard	.083
4-in. hollow tile, ⅝-in. roofing, 4 -in. Jointite Corkboard	.065
6-in. hollow tile, ⅝-in. roofing, no insulation	.398‡
6-in. hollow tile, ⅝-in. roofing, 1 -in. Jointite Corkboard	.171
6-in. hollow tile, ⅝-in. roofing, 1½-in. Jointite Corkboard	.133
6-in. hollow tile, ⅝-in. roofing, 2 -in. Jointite Corkboard	.109
6-in. hollow tile, ⅝-in. roofing, 3 -in. Jointite Corkboard	.080
6-in. hollow tile, ⅝-in. roofing, 4 -in. Jointite Corkboard	.063

*On yellow pine, nominal thickness specified, actual thickness used in tests.
†Factor as furnished by the Truscon Steel Co.
‡½-in. plaster on underside and 2-in. concrete roof slab over tile is assumed.

Use of Chart

Locate the room temperature on Room Temperature Scale at top of chart and follow down on the corresponding line to its intersection with the line which represents the required humidity percentage, finding this point by interpolating, if necessary, on that segment of the vertical line between the diagonal lines, to obtain any required intermediate percentage between those shown in the left-hand column. For the sake of explanation the horizontal line so found will be referred to as the "humidity horizontal" for any particular case in point.

Next, determine the point of maximum difference in temperature on the scale at the bottom of the chart and follow up on the corresponding vertical line until it intersects the "humidity horizontal" and consider the point of intersection as point "A." Note where point "A" lies between two of the diagonal lines which represent amount of heat loss, and by interpolation between these light lines determine its value as compared to the figures in the right-hand column. The value so found will be the maximum allowable heat loss.

Determine from the Table of Heat Loss the thickness of insulation which will show a heat loss less than the value of "A" using the section of the table which shows the proposed type of construction combined with the insulation.

See also typical construction details showing heat loss tabulation.

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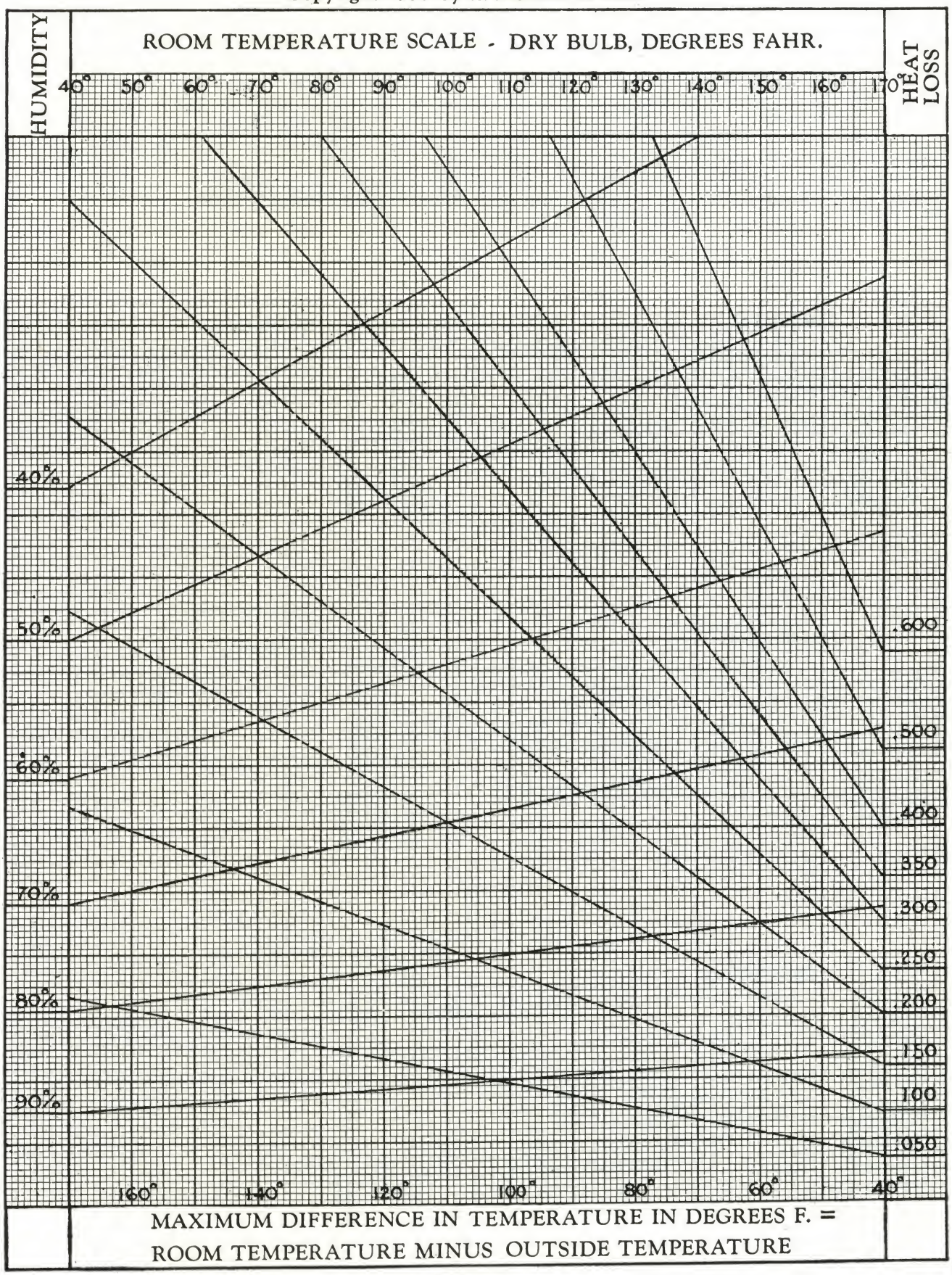
HEAT LOSS CHART

FOR DETERMINING THE MAXIMUM ALLOWABLE HEAT LOSS



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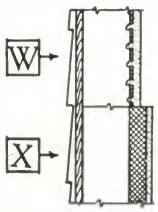
TYPICAL CONSTRUCTION DETAILS

Showing Heat Transmission for Insulated and Uninsulated Construction

Below are illustrated certain commonly used building sections, with and without insulation, together with tables showing the heat transmission through them expressed in B.t.u. per hour, per square foot, per degree difference in temperature. The figures given have been taken or computed from information contained in the 1930 Guide of the American Society of Heating and Ventilating Engineers.

The cuts are representative of methods of construction in common use and the data given will apply regardless of size or class of work. Should there be a type not illustrated upon which information is desired, a communication addressed to any of our offices will receive immediate attention and the specific information will be gladly furnished.

It is apparent from an inspection of these tables that the use of Mundet "Jointite" Corkboard will effect a considerable monetary saving. In commercial practice, the intangible factor of increased comfort for people working in insulated rooms, while difficult to estimate in dollars and cents is, nevertheless, an important consideration that is receiving greater attention from the careful executive. In the home, where comfort is of paramount importance, fuel economy due to use of Mundet "Jointite" Corkboard Insulation is overshadowed by factors of increased health and comfort.

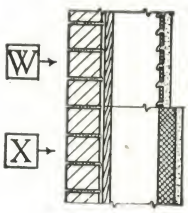


Specification

"W" beveled siding, waterproof paper, sheathing, studding, lath and plaster.

"X" beveled siding, waterproof paper, sheathing, studding, corkboard, plaster.

Not insulated, W	X, insulated with corkboard, in.	
	1½	2
.275	.117	.098

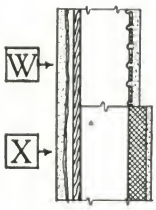


Specification

"W" brick veneer, waterproof paper, sheathing, studding, lath and plaster.

"X" brick veneer, waterproof insulation paper, sheathing, studding, corkboard, plaster.

Not insulated, W	X, insulated with corkboard, in.	
	1½	2
.258	.114	.087

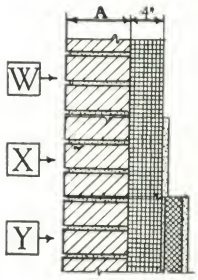


Specification

"W" stucco on metal lath, furring, waterproof paper, sheathing, studding, lath and plaster.

"X" stucco on metal lath, furring, waterproof paper, sheathing, studding, corkboard, plaster.

Not insulated, W	X, insulated with corkboard, in.	
	1½	2
.319	.125	.103



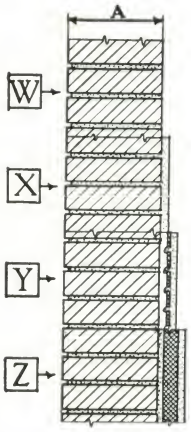
Specification

"W" brick, tile.

"X" brick, tile, plaster.

"Y" brick, tile, portland cement backing, corkboard, plaster.

Thickness, A, in.	Not insulated		Y, insulated with corkboard, in.	
	W	X	1½	2
8	.257	.243	.110	.092
12	.205	.197	.101	.087
16	.196	.185	.098	.085



Specification

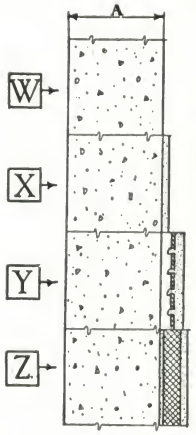
"W" 4-in. face brick and common brick.

"X" brick, plaster.

"Y" brick, furring, lath and plaster.

"Z" brick, portland cement mortar backing, corkboard, plaster.

Thickness, A, in.	Not insulated			Z, insulated with corkboard, in.	
	W	X	Y	1½	2
8	.385	.356	.261	.127	.105
12	.295	.277	.216	.115	.097
16	.238	.227	.184	.104	.090
20	.190	.176	.153	.097	.083
24	.162	.148	.126	.089	.078



Specification

"W" concrete—1 : 3 : 5 mix.

"X" concrete, plaster.

"Y" concrete, furring, lath and plaster.

"Z" concrete, portland cement mortar backing, corkboard, plaster.

Thickness, A, in.	Not insulated			Z, insulated with corkboard, in.	
	W	X	Y	1½	2
4	.641	.573	.367	.150	.121
6	.583	.518	.339	.142	.116
8	.512	.461	.314	.138	.113
10	.455	.416	.292	.134	.109
12	.411	.378	.273	.131	.106
16	.343	.320	.241	.122	.101
18	.319	.299	.228	.120	.099
20	.294	.277	.216	.116	.097

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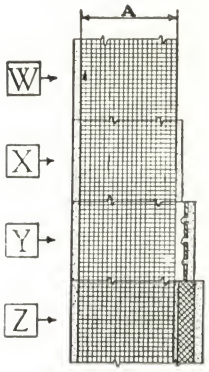


Specification

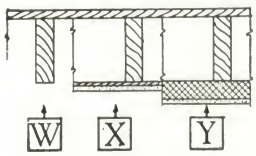
"W" stucco, hollow tile.

"X" stucco, hollow tile, plaster.

"Y" stucco, hollow tile, furring, lath and plaster.

"Z" stucco, hollow tile, portland cement backing, corkboard, plaster.

Thickness, A, in.	Not insulated			Z, insulated with corkboard, in.	
	W	X	Y	1½	2
4	.515	.463	.411	.142	.115
6	.419	.384	.346	.134	.110
8	.317	.296	.228	.119	.099
10	.304	.285	.221	.117	.093
12	.241	.229	.186	.106	.090



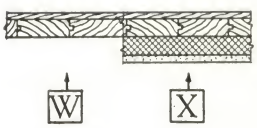
Specification

"W" single wood floor joists.

"X" single wood floor joists, lath and plaster.

"Y" single wood floor, corkboard, plaster.

Not insulated		Y, insulated with corkboard, in.	
W	X	1½	2
.440	.272	.119	.100

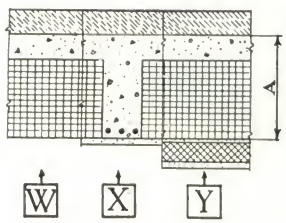


Specification

"W" finished wood floor (1 in.), mill constructed plank floor.

"X" finished wood floor, mill constructed plank floor, corkboard, plaster.

Not insulated, W	X, insulated with corkboard, in.	
	1½	2
.233	.108	.092



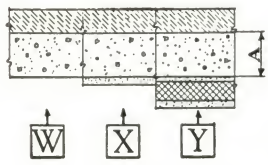
Specification

"W" finished (2-in.) concrete floor, reinforced concrete joist and tile slab.

"X" finished floor, reinforced concrete joist and tile slab, plaster.

"Y" finished floor, reinforced concrete joist and tile slab, portland cement mortar backing, corkboard, plaster.

Thickness, A, in.	Not insulated		Y, insulated with corkboard, in.	
	W	X	1½	2
5½	.621	.550	.150	.120
8	.430	.359	.135	.112
10½	.392	.321	.132	.108
13	.370	.299	.129	.106
15½	.271	.200	.114	.096



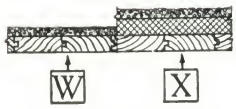
Specification

"W" finished (2-in.) concrete floor, reinforced concrete slab.

"X" finished floor, reinforced concrete slab, plaster finish.

"Y" finished concrete floor, reinforced concrete slab, portland cement mortar backing, corkboard, plaster.

Thickness, A, in.	Not insulated		Y, insulated with corkboard, in.	
	W	X	1½	2
4	.461	.419	.135	.110
5	.438	.400	.133	.109
6	.417	.380	.131	.107
7	.392	.363	.129	.106
8	.378	.348	.127	.105
10	.345	.322	.123	.103

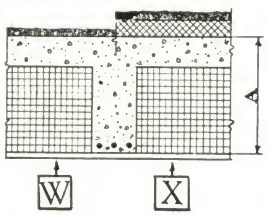


Specification

"W" standard built-up roofing, mill construction plank roof.

"X" standard built-up roofing, corkboard, mill construction plank roof.

Not insulated, W	X, insulated with corkbpard, in.	
	1½	2
.345	.126	.104

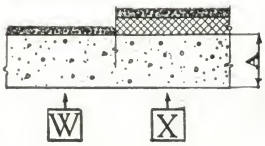


Specification

"W" standard built-up roofing, reinforced concrete joists and tile slab, plaster.

"X" standard built-up roofing, corkboard, reinforced concrete joists and tile slab, plaster.

Thickness, A, in.	Not insulated, W	X, insulated with corkboard, in.	
		1½	2
5½	.515	.143	.116
8	.456	.138	.112
10½	.410	.133	.109
13	.381	.130	.107



Specification

"W" standard built-up roofing, reinforced concrete slab.

"X" standard built-up roofing, corkboard, reinforced concrete slab.

Thickness, A, in.	Not insulated, W	X, insulated with corkboard, in.	
		1½	2
2	.658	.153	.122
3	.610	.151	.120
4	.568	.148	.119
5	.532	.145	.117
6	.500	.143	.115
7	.472	.140	.113
8	.447	.138	.112

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MACHINERY ISOLATION

Mundet Natural Cork Isolation Mats

The most effective way to isolate machinery to prevent the transmission of vibration and noise would be to have an air space completely surround the machine. As this is not possible, it becomes necessary to employ an isolating medium of sufficient strength to support the machinery.

This medium should be selected with a great deal of care or its purpose will be defeated. It must not be a precompressed material, granular, take a permanent set after a load has been imposed upon it, or have too high a loading point before it begins to function. It should have structural strength to sustain the load, sufficient permanent resiliency to remain durable and indestructible when placed under any kind of vibratory loads. It should be water, oil, acid and alkali proof. It should be resilient at a fairly low loading point and able to resume its natural state when subject to severe impacts or thusts.

Many materials have been used for this purpose; compressed cork, felt, sand, rubber, springs, timber and natural cork. (By natural cork is meant the cork just as it has been stripped from the tree, only the extreme outer bark having been removed.) The material selected as serving the greatest number of cases and embodying the most favorable characteristics is natural cork. This when properly used has by far the best isolating properties.

Natural cork is the bark of a species of oak tree principally grown in Spain and Portugal. *Natural cork has in its structure hundreds of air cells* which are very desirable in an isolating material for it supplies the nearest to perfect isolation which is the air space. Also, it has structural strength, permanent elasticity, durability and low loading point.

To obtain the best results the authorities state that the cork should be cut in strips so that the grain of the cork is in a horizontal position when the load is imposed upon it. To do this without the means of cohesive substances, frames of light steel are constructed. These frames should have longitudinal and lateral struts inserted at intervals according to the size of the frame. Into these squares, strips of the natural cork should be carefully fitted. The plates should be sanded to an even surface and impregnated with non-volatile oils to preserve the natural cork oil. This impregnation also makes the cork impervious to water, acids and alkalies.

Mundet Natural Cork Insolation Mats are constructed exactly in accordance with the best established practice. Only the highest quality of materials and workmanship are used in their fabrication. Our cork is the finest of the isolation cork obtainable in Portugal and Spain and because of our ability to use the waste in other products only the very choice pieces are used in making the Mundet Natural Cork Isolation Mats. The steel frames are rigidly constructed and will not burst open even when put under the greatest strain.

Each plate is submerged in our special non-volatile oil and allowed to remain until properly saturated.

Natural cork has been used for more than a quarter of a century for isolating machines and machine foundations, both in this country and in Europe. Many of our leading architects and engineers have standardized on natural cork and include it in the specifications for all machinery foundations, realizing in doing so they are using the only safe method to prevent the transmission of vibration and noise.

Sizes

Mundet Natural Cork Isolation Mats are made in any size or shape, in 1½, 2 or 3-in. thicknesses. The standard thickness, 1½-in., is stocked for immediate delivery and can be had in the following sizes (sizes are in inches):

50x25	40x20	30x15	25x15	15x15
50x15	40x15	30x12	25x10	12x12
50x12	40x12	30x10	20x15	8x8
50x10	40x10	30x8	20x10	6x6

The 2 and 3-in. thick Mundet Natural Cork Isolation Mats are used for machinery having severe vertical impacts or intense vibrations. They can be made in any size or quantity on short notice.

Mundet Natural Cork Isolation Mats

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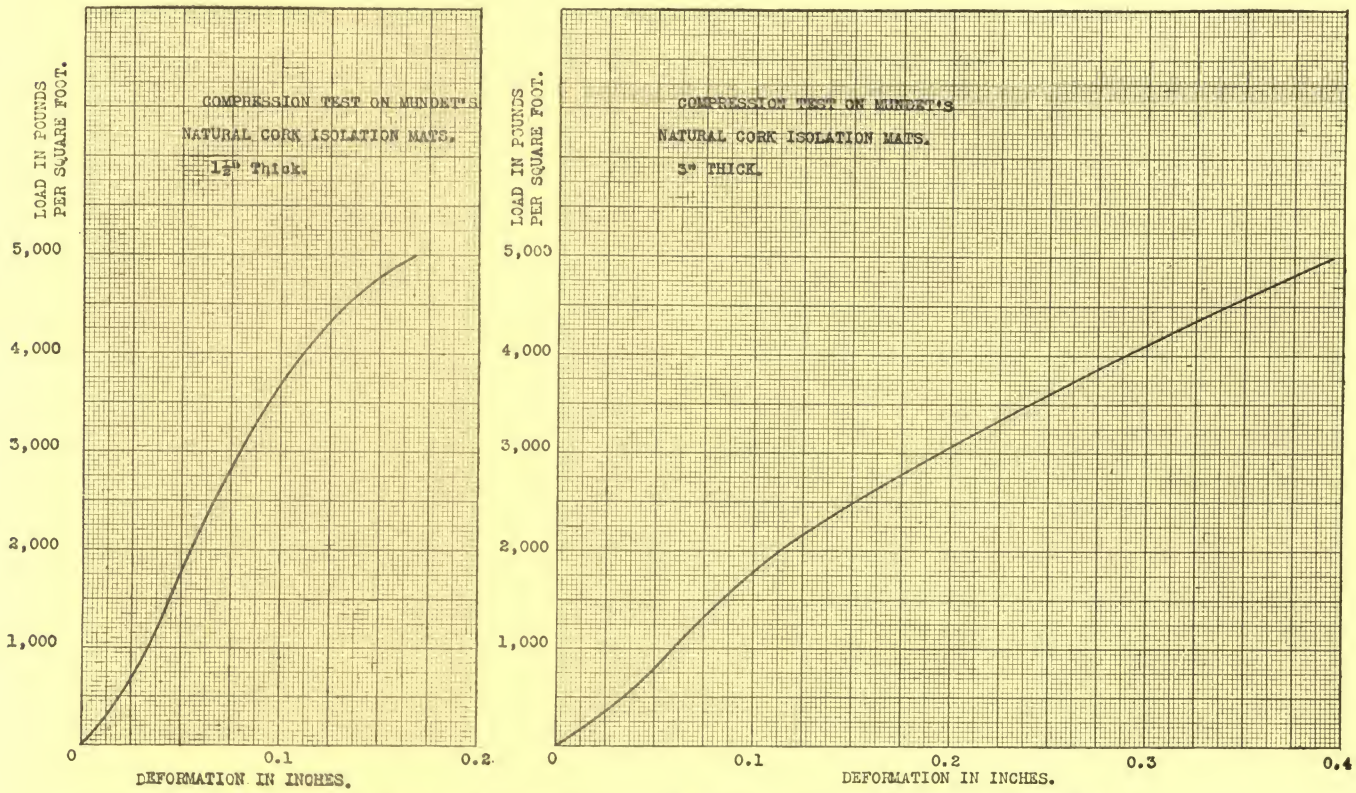
Service

Our numerous branch offices throughout the United States and Canada are manned with trained engineers who will readily solve your vibration or noise problems. Send information regarding your requirements to the nearest office, or ask to have one of our engineers call and tell you how, with Mundet Natural Cork Isolation Mats, your problem can be solved.



Compression Tests on Mundet "Jointite" Isolation Corkboard, 1½ and 3 In. Thick

The above charts show the deformation at different loads for the thicknesses indicated from which can be selected the proper grade to be used